1. **INTRODUCTION**

ICAO’s main objective in organizing TRAINAIR PLUS Course Developers and Instructors Standardization (CDI/STD) Meetings is to promote and enhance training effectiveness and efficiency and provide a unique platform for training professionals to exchange their knowledge and skills in the areas of instructional design and delivery, as well as share best practices, discuss challenges, and identify opportunities for the improvement of training deliverables.

2. **PARTICIPANTS**

The meeting was attended by ninety-two participants from thirty-two Member States. A list of participants is located on the meeting website at [http://www.icao.int/safety/TrainairPlus](http://www.icao.int/safety/TrainairPlus).

3. **ORGANIZATION**

The meeting was hosted by the Gulf Centre for Aviation Studies (GCAS) and was organized into eight panels, which addressed instructors competencies and the main processes of course development and training delivery. Presentations from all panels are located on the meeting website at [http://www.icao.int/safety/TrainairPlus](http://www.icao.int/safety/TrainairPlus).

4. **ITEMS DISCUSSED AND CONCLUSIONS**

The following is a summary of each panel’s discussions and conclusions.

**Panel 1: Qualification of Instructors**

This panel addressed the main question on how to implement the ICAO Instructor Competency Framework at a global level. The ICAO Instructor Competency Framework and the International Board of Standards for Training, Performance and Instruction (IBSTPI) Instructor Competencies were presented. The ICAO Instructor Competency Framework is composed of six units and nineteen elements; the IBSTPI framework consists of five domains and eighteen competencies. Both frameworks specify the functions, tasks, and performance criteria to be achieved as a competent instructor.

**Conclusion:** Using either the ICAO or IBSTPI competency framework would allow training organizations to identify objective criteria for the recruitment, training, and recurrent assessment of their instructors. These competency frameworks also allow individual instructors self-evaluation and continuous improvement.

**Panel 2: Instructional Techniques**

This panel addressed the main question on how to choose the most effective instructional technique(s) to meet training objectives. Presenters discussed options regarding instructional techniques from the aspects of training philosophy, population analysis, and setting of the taxonomy level.

**Conclusion:** One instructional technique will not work for all training objectives. Instructors should explore various possible ways to deliver the same material and adapt instructional techniques to the environment of learning and to the learners without compromising the training outcome.
Panel 3: Best Practices in Training Delivery

This panel addressed experiences and best practices in training delivery. Training delivery aimed at the objectives, effective training delivery, and an overview of a training and development programme were presented.

**Conclusion:** Effective training delivery is based on appropriate practices and procedures to be followed, such as concentrating on training objectives via gradual consolidation of relevant learning objectives and Knowledge, Skills and Attitudes (KSAs), periodically scanning the training delivery parameters to meet the preferences of the individual learners, and enhancing the instructor’s focus through the use of module plans and visual aids.

Panel 4: Continuous Improvement

This panel addressed the main question on how to continuously improve instructors' performance.

**Conclusion:** Instructors should take advantage of any opportunity to enhance their teaching skills. To continuously improve the performance of instructors, there is a necessity to adapt the approach of planning, doing, checking, and acting, which requires a well-organized plan and a collective commitment of all staff in the training organization.

Panel 5: Training Needs Analysis

This panel addressed the main question on how to enhance performance effectiveness through competency-based training needs analysis. Result-oriented task descriptions, use of regulatory requirements within training needs analysis, and enhancing the training impact through the use of a quality assurance system (ISO10015) were presented.

**Conclusion:** Course developers should use, when possible, a result-oriented approach for Job Analysis, in order to facilitate the evaluation of the trainee performance during and after the training. Existing regulatory requirements for training should also be taken into account when performing training needs analysis, and training organizations should consider implementing ISO10015 to ensure an enhanced training impact on performance.

Panel 6: Design and Development

This panel addressed the main question on how to overcome challenges in the process of design and development of competency-based training.

**Conclusion:** Challenges in the process of design and development were discussed and could be summarized into three categories: macro, practical, and technical. Within the macro level, consideration should be focused on the changing market place, internal structures, expectations of corporate benefits, extended training organization offers and new technologies. On the practical side, the operational feedback regarding training, budget prioritization, Subject-Matter-Experts (SMEs) availability, and administrative support during the development process should be considered. In the technical area, sequencing is very much a challenge.

Panel 7: Validation, Implementation and Evaluation

This panel addressed the main question on how to overcome challenges in the validation, implementation, and evaluation of competency-based training processes and shared some practices within these processes.
**Conclusion:** The main factors affecting validation include: selection of the target population, proficiency of the instructors, experience of the course developers, quality of the training materials, course preparation, environmental constraints, etc. Recommendations for the implementation of training are as follows: screening trainees through the prerequisite test, ensuring adequate competent instructor(s), and preparing the training environment. All training programmes should have an evaluation plan; the Kirkpatrick training evaluation model offers a good example in this regard.

**Panel 8: Best Practices in Quality Management**

This panel addressed the main question on how to implement a quality management system in civil aviation training. Two examples of quality management systems and post-training evaluation were presented.

**Conclusion:** ICAO requires Approved Training Organizations (ATOs) to implement a Quality Management System. Joint organizational efforts, together with a high-quality course development and evaluation process, plus an efficient and effective automated training administration and management system are key elements of the system.
APPENDIX
List of Moderators and Speakers

Panel #1 - Qualification of Instructors
Moderator: Capt. Mostafa Hoummady, Global Aviation Training (GAT) Manager, ICAO
Speakers: Ms. Jie Huang, Training Standardization and Development Officer, GAT, ICAO
          Mr. Abdel Qader Abu Salim, TRAINAIR PLUS Validator, Gulf Centre for Aviation Studies (GCAS), United Arab Emirates (UAE)

Panel #2 - Instructional Techniques
Moderator: Mr. Aws N. Al Khanjari, General Manager of Gulf Centre for Aviation Studies (GCAS), UAE
Speakers: Mr. Mark Robert Blanchard, Director of the ATC Department of Qatar Aeronautical College (QAC), Qatar
          Ms. Kerstin Sjöbeck, Director of Development and Head of Training of the Entry Point North, Sweden

Panel #3 - Best Practices in Training Delivery
Moderator: Mr. Kevin O'Driscoll, Vice President of Dublin Airport Authority (DAA), Ireland
Speakers: Mr. Jevgenijs Oborins, TRAINAIR PLUS Validator, Latvia
          Mr. Peter Wilczek, Director Training of Aviation Academy International (AAI), Germany

Panel #4 - Continuous Improvement
Moderator: Mr. Ismael Faraji, TRAINAIR PLUS Validator, Civil Aviation Technology College (CATC), Iran
Speakers: Mr. Sameh Shalash, Head of Course Development Unit, Egyptair Training Center, Egypt
          Mr. Abdalla Nour, Head of Course Development Unit, Sudan Academy for Aviation Sciences and Technology (SUDAFAST), Sudan

Panel #5 - Training Needs Analysis
Moderator: Mr. Abdel Qader Abu Salim, TRAINAIR PLUS Validator, Gulf Centre for Aviation Studies (GCAS), UAE
Speakers: Mr. Jevgenijs Oborins, TRAINAIR PLUS Validator, Latvia
          Mr. Badung Tongong Ayuba, Principal Instructor and Course Developer, Nigerian College of Aviation Technology (NCAT), Nigeria

Panel #6 - Design and Development
Moderator: Mr. Rodney Subramany, Senior Manager of Aviation Training Academy (ATA), South Africa
Speakers: Mr. Fernando Marrero, TRAINAIR PLUS Validator, Spain
          Mr. Ismael Faraji, TRAINAIR PLUS Validator, Civil Aviation Technology College (CATC), Iran
          Mr. Teshale Bekele Tadesse, Director of the Ethiopian Civil Aviation Training Center (ECATC), Ethiopia

Panel #7 - Validation, Implementation and Evaluation
Moderator: Ms. Jie Huang, Training Standardization and Development Officer, GAT, ICAO
Speakers: Mr. Hussam Abendeh, TRAINAIR PLUS Validator, Jordan
          Mr. Jacques Belinga, TRAINAIR PLUS Validator, Ecole Africaine de La Météorologie et de l'Aviation Civile (EAMAC), Niger
          Ms. Mary Sindiga, TRAINAIR PLUS Validator, East Africa School for Aviation (EASA), Kenya

Panel #8 - Best Practices in Quality Management
Moderator: Mr. Joost Jonker, Director of Joint Aviation Authorities Training Organization (JAA TO), Netherlands
Speakers: Ms. Rabia Tuba Yildiz, Turkish Aviation Academy (TAA), Turkey
          Mr. Salman Al-Masri, Head of Course Development Unit, Queen Noor Civil Aviation Technical College (QNCATC), Jordan

Panel #9 - Latest Training Innovations
Speaker: Mr. Rex Williams, Manager, Standards and Regulatory Compliance for Bombardier Aircraft Training

Panel #10 - Future Plans of ICAO Training Programme
Speakers: Capt. Mostafa Hoummady, GAT Manager, ICAO
          Mr. Mekki Lahlou, Training Planning and Operations Officer, GAT, ICAO

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